

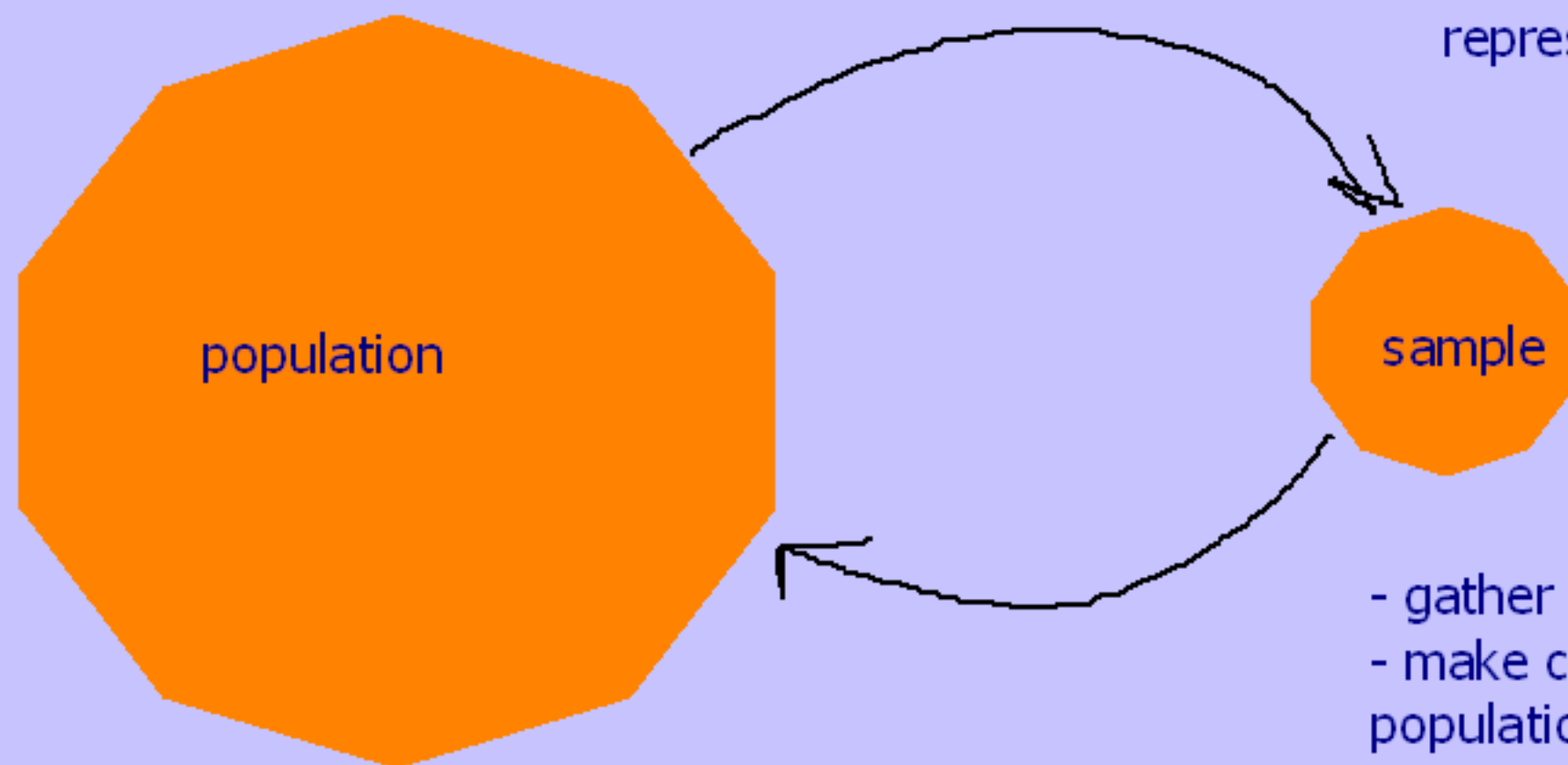
Some Introductory Statistics Vocabulary...

Population versus Sample

Population - All of a certain group

Sample

- A small section of the population
- can be good or bad representation of the pop.



- gather data from sample
- make conclusions about population

Data.....what does it consist of?

Individuals:

The objects described by a set of data

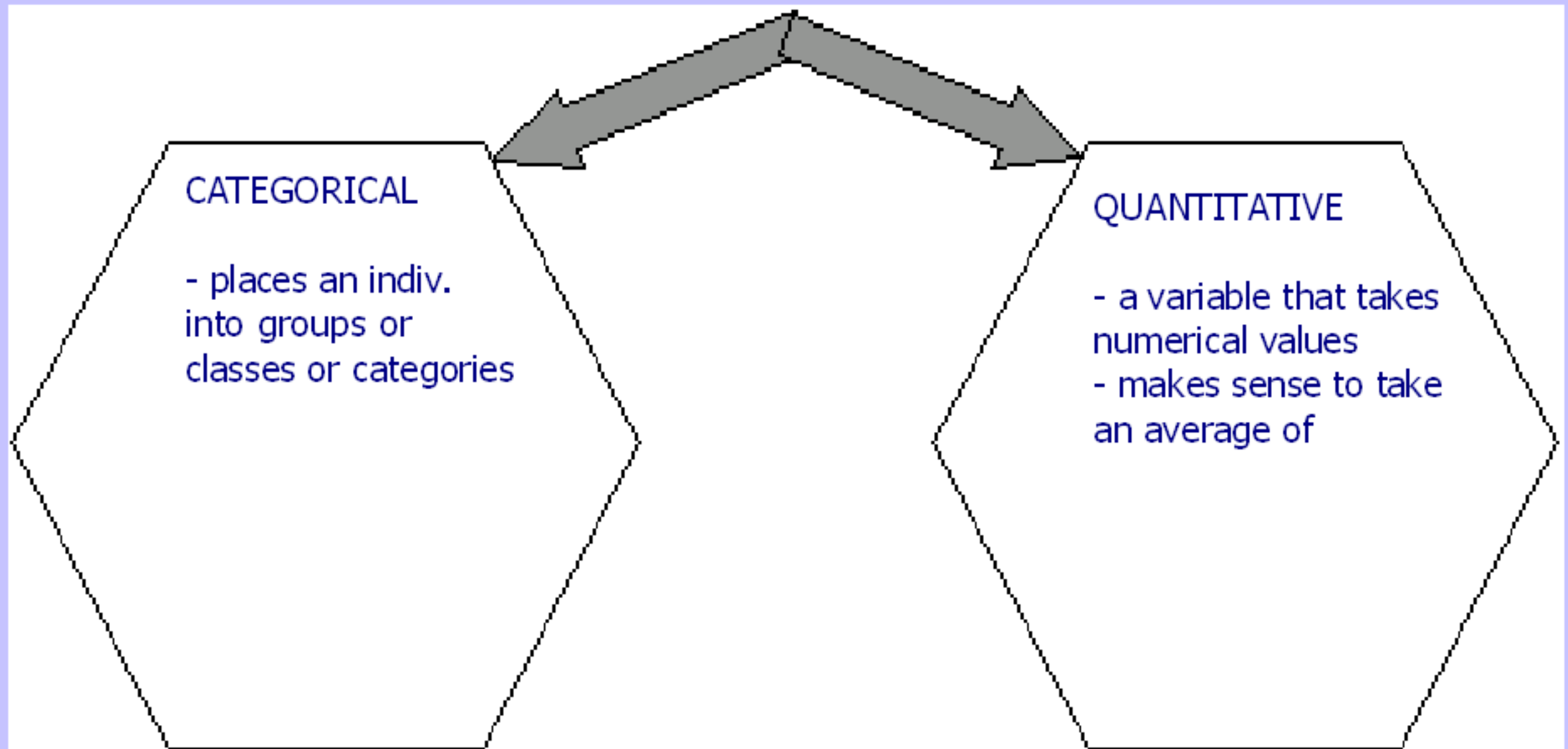
Ex: Colleges, cars, students, plants, dogs, etc.



Variables:

- characteristic of an individual
- something we measure about the individual
- different values for different individuals

Variables:

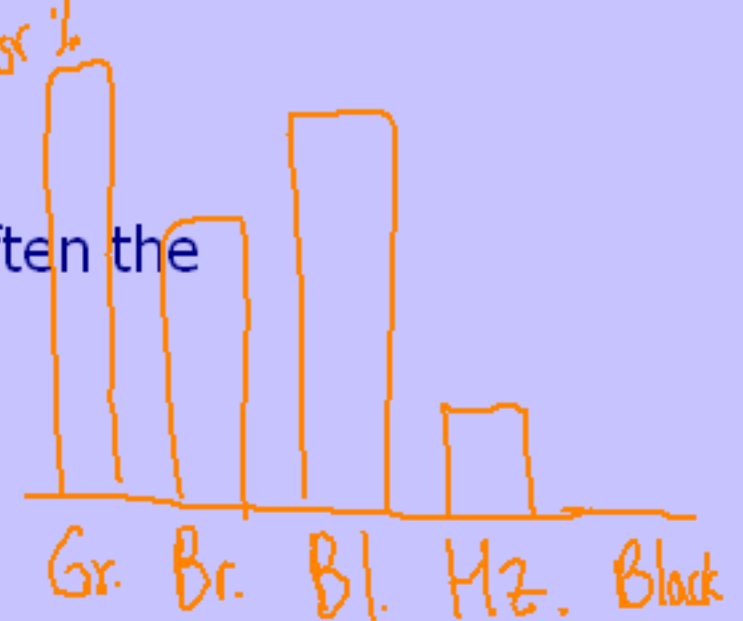


EXAMPLE: Variables about college

class size	avg.	Q
majors	#	Q
location		C
distance,	miles from home	Q
tuition	\$\$\$\$	Q
clubs/sports	#	Q
private/public		C
division		C
faculty mem.		Q

Distribution (of a variable)-

- Shows all the different values of the variable and how often the variable takes those values
- Examples: histogram, stemplot, bar chart, etc.



Exploratory Data Analysis-

- Uses graphs, distributions, numerical summaries to describe a set of data
- We will do this for Ch. 1-5 in the book

averages, Med.
min, max
std. dev %

* **SECOND PART OF THE COURSE: INFERENCE
Inference (to infer something)-

Ch. 6-10

educated guess based on data w/ certainty

Input your data on the side board by putting a tally mark next to where you fit

HAIR COLOR

Blond

Brown

Black

Red

Mixed

EYE COLOR

Blue

Green

Brown

Hazel

Mixed

Other

ZIP CODE

18976

18901

Other

Graphs/Distributions:

Which ones will we do?

Categorical Distributions:

1. Bar Graph

Example:

2. Pie Chart

Example:

Quantitative Distributions:

1. Stemplot (aka Stem and Leaf Plot)

- Separate...
- Write...
- Write...

Example 1: Babe Ruth's homerun totals each season for the Yankees:
54, 59, 35, 41, 46, 25, 47, 60, 54, 46, 49, 41, 34, 22

Create a stemplot:

Example 1: Babe Ruth's homerun totals each season for the Yankees:
54, 59, 35, 41, 46, 25, 47, 60, 54, 46, 49, 41, 34, 22

Example 2: Roger Maris' homerun totals for the Yankees:
8, 13, 23, 33, 28, 16, 39, 26, 61

Create a Back-to-Back stemplot

Splitting Stems:

When?

In what ways can the stems be split?

Example 3: Age guesses

BLOCK 1 & 2

[illegible]

[illegible]

[illegible]

Age guesses:**Block 1 & 2**

2	
2	
2	
2	
2	
2	5 5 5
2	6 6 6 6 6 6 6
2	7 7 7 7 7 7 7
2	8 8 8 8 8 8 8 8
2	9 9 9 9 9 9 9
3	0 0
3	1
3	2 2 2 2 2 2 2 2
3	3 3 3
3	4 4
3	
3	
3	
3	
3	9
4	0

Block 1

2	
2	
2	
2	
2	
2	5 5
2	6 6 6 6
2	7 7 7
2	8 8 8
2	9 9 9 9 9 9
3	0 0
3	
3	2 2 2 2
3	3
3	4 4
3	
3	
3	
3	
3	
4	

Block 2

2	
2	
2	
2	
2	
2	5
2	6 6 6
2	7 7 7 7
2	8 8 8 8 8
2	9
3	
3	1
3	2 2 2 2
3	3
3	
3	
3	
3	
3	9
4	0

2. Dotplot

- *Each...*

- *Every time...*

- *Better for...*

Example 1: Age Guesses

Example 4: Below are the number of Eagles tickets bought per buyer during a 1 hour period on ticketmaster.com:

8, 5, 0, 7, 1, 4, 4, 6, 2, 1, 4, 5, 3, 0, 8, 4, 3, 2, 6, 3

Create a dotplot

- Please take a look at the sheet entitled:
Inputting and working with lists
- Please find a partner, get out your calculators, and
come get a link off the front table
- Please complete the worksheet

3. Histogram

- *Take...*
 - o *Understand*
 - o *Choose*
 - o *Classes*
- *Count...*
- *Create...*
 - o *X-axis:*
 - o *Y-axis:*

Example: page 14, example problem 1.9

Example 2: Test Scores (LTEST)

 Create a frequency histogram on the calculator

Creating other types of histograms:

Using a chart is very helpful when creating the other types of histograms:

List TEST

Class/Group	Frequency	Relative Frequency	Cumulative Frequency	Cumulative Relative Freq.
Total:				

Graphs:

Comparison:

Stemplots

Histograms

